

Serial Number: 10/016,993

**ENTERED**

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: \_\_\_\_\_
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other \_\_\_\_\_
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: \_\_\_\_\_
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: \_\_\_\_\_
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: \_\_\_\_\_
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: \_\_\_\_\_
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: \_\_\_\_\_
- ☒ Deleted: ☒ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as \_\_\_\_\_
- ☐ Inserted mandatory headings, specifically: \_\_\_\_\_
- ☐ Corrected an obvious error in the response, specifically: \_\_\_\_\_
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: \_\_\_\_\_
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_

Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form. 3/195

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/016,993

DATE: 01/10/2002

TIME: 08:53:21

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01102002\J016993.raw

4 <110> APPLICANT: Wiles, Michael V.  
 5 Baribault, Helene  
 6 Zhang, Qin  
 8 <120> TITLE OF INVENTION: TRANSGENIC MICE CONTAINING ALPHA  
 9 ENDOSULFINE GENE DISRUPTIONS  
 12 <130> FILE REFERENCE: R-948  
 14 <140> CURRENT APPLICATION NUMBER: US/10/016,993  
 15 <141> CURRENT FILING DATE: 2001-12-13  
 17 <150> PRIOR APPLICATION NUMBER: US 60/256,195  
 18 <151> PRIOR FILING DATE: 2000-12-13  
 20 <160> NUMBER OF SEQ ID NOS: 7  
 22 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 24 <210> SEQ ID NO: 1  
 25 <211> LENGTH: 366  
 26 <212> TYPE: DNA  
 27 <213> ORGANISM: Mus musculus  
 29 <400> SEQUENCE: 1  
 30 atgtcccaga aacaagaaga agaaaaccct gcggaggaga ccggcgagga gaagcaggat 60  
 31 acacaggaga aagaagggat tctccctgag aaagctgagg aggcaaagct aaaggccaaa 120  
 32 taccgaagcc taggacaaaa gcctggaggc tccgacttcc tcatgaagag actccagaaa 180  
 33 gggcaaaaagt actttgactc aggagactac aacatggcca aagccaagat gaagaacaag 240  
 34 cagctgccaa gtgcaggagc agacaagaac ctggtgaccg gtgaccacat cccacccca 300  
 35 caggatctgc cccagagaaa gtcctcgctc gtcaccagca agcttgcggg tggccaagtt 360  
 36 gaatga 366  
 38 <210> SEQ ID NO: 2  
 39 <211> LENGTH: 121  
 40 <212> TYPE: PRT  
 41 <213> ORGANISM: Mus musculus  
 43 <400> SEQUENCE: 2  
 44 Met Ser Gln Lys Gln Glu Glu Glu Asn Pro Ala Glu Glu Thr Gly Glu  
 45 1 5 10 15  
 46 Glu Lys Gln Asp Thr Gln Glu Lys Glu Gly Ile Leu Pro Glu Lys Ala  
 47 20 25 30  
 48 Glu Glu Ala Lys Lys Leu Lys Ala Lys Tyr Pro Ser Leu Gly Gln Lys Pro  
 49 35 40 45  
 50 Gly Gly Ser Asp Phe Leu Met Lys Arg Leu Gln Lys Gly Gln Lys Tyr  
 51 50 55 60  
 52 Phe Asp Ser Gly Asp Tyr Asn Met Ala Lys Ala Lys Met Lys Asn Lys  
 53 65 70 75 80  
 54 Gln Leu Pro Ser Ala Gly Ala Asp Lys Asn Leu Val Thr Gly Asp His  
 55 85 90 95  
 56 Ile Pro Thr Pro Gln Asp Leu Pro Gln Arg Lys Ser Ser Leu Val Thr  
 57 100 105 110  
 58 Ser Lys Leu Ala Gly Gly Gln Val Glu  
 59 115 120  
 62 <210> SEQ ID NO: 3  
 63 <211> LENGTH: 121

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Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01102002\J016993.raw

```

64 <212> TYPE: PRT
65 <213> ORGANISM: Homo sapiens
67 <400> SEQUENCE: 3
68 Met Ser Gln Lys Gln Glu Glu Glu Asn Pro Ala Glu Glu Thr Gly Glu
69 1 5 10 15
70 Glu Lys Gln Asp Thr Gln Glu Lys Glu Gly Ile Leu Pro Glu Arg Ala
71 20 25 30
72 Glu Glu Ala Lys Leu Lys Ala Lys Tyr Pro Ser Leu Gly Gln Lys Pro
73 35 40 45
74 Gly Gly Ser Asp Phe Leu Met Lys Arg Leu Gln Lys Gly Gln Lys Tyr
75 50 55 60
76 Phe Asp Ser Gly Asp Tyr Asn Met Ala Lys Ala Lys Met Lys Asn Lys
77 65 70 75 80
78 Gln Leu Pro Ser Ala Gly Pro Asp Lys Asn Leu Val Thr Gly Asp His
79 85 90 95
80 Ile Pro Thr Pro Gln Asp Leu Pro Gln Arg Lys Ser Ser Leu Val Thr
81 100 105 110
82 Ser Lys Leu Ala Gly Gly Gln Val Glu
83 115 120
86 <210> SEQ ID NO: 4
87 <211> LENGTH: 117
88 <212> TYPE: PRT
89 <213> ORGANISM: Homo sapiens
91 <400> SEQUENCE: 4
92 Met Ser Gln Lys Gln Glu Glu Glu Asn Pro Ala Glu Glu Thr Gly Glu
93 1 5 10 15
94 Glu Lys Gln Asp Thr Gln Glu Lys Glu Gly Ile Leu Pro Glu Arg Ala
95 20 25 30
96 Glu Glu Ala Lys Leu Lys Ala Lys Tyr Pro Ser Leu Gly Gln Lys Pro
97 35 40 45
98 Gly Gly Ser Asp Phe Leu Met Lys Arg Leu Gln Lys Gly Gln Lys Tyr
99 50 55 60
100 Phe Asp Ser Gly Asp Tyr Asn Met Ala Lys Ala Lys Met Lys Asn Lys
101 65 70 75 80
102 Gln Leu Pro Ser Ala Gly Pro Asp Lys Asn Leu Val Thr Gly Asp His
103 85 90 95
104 Ile Pro Thr Pro Gln Asp Leu Pro Gln Arg Lys Ser Ser Leu Val Thr
105 100 105 110
106 Ser Lys Leu Ala Gly
107 115
110 <210> SEQ ID NO: 5
111 <211> LENGTH: 83
112 <212> TYPE: DNA
113 <213> ORGANISM: Artificial Sequence
115 <220> FEATURE:
116 <223> OTHER INFORMATION: RACE sequence
118 <400> SEQUENCE: 5
119 tcggttaaaa acgtcacggg ottgagccgc cattttgact gagcaaccat agtgatagga 60
120 gccgtagcat tagctcaggt tgt 83

```

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TIME: 08:53:21

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01102002\J016993.raw

```
122 <210> SEQ ID NO: 6
123 <211> LENGTH: 200
124 <212> TYPE: DNA
125 <213> ORGANISM: Artificial Sequence
127 <220> FEATURE:
128 <223> OTHER INFORMATION: Targeting Vector
130 <400> SEQUENCE: 6
131 gcaaaaatac caaagcttgc tgcctgccc ctaaggtcca tgcaggcttt taattggttc 60
132 tgtggctcac tctctttccc gggttggtgtt ctagcttgcc tgcgctcta aagaatccgc 120
133 ccacctccgg ccaacgctta ttggtgtgtc gttacatcat tgccccgtca agcccactct 180
134 cattggctct cataggaggg                                     200
136 <210> SEQ ID NO: 7
137 <211> LENGTH: 200
138 <212> TYPE: DNA
139 <213> ORGANISM: Artificial Sequence
141 <220> FEATURE:
142 <223> OTHER INFORMATION: Targeting Vector
144 <400> SEQUENCE: 7
145 ggcggtctca acgtcacggg cttgagccgc ctttttgact gagcaaccat agtgacagga 60
146 gccgtagcag cagctcaggt tgtccccgtt tcccctcccc ctccctttt ccggtgact 120
147 tcccggaccc tgcattacac agtcccgtt ctgccatgtc ccagaaacaa gaagaagaaa 180
148 accctgcgga ggagaccggc                                     200
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/016,993

DATE: 01/10/2002

TIME: 08:53:22

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01102002\J016993.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date

OIPE

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/016,993

DATE: 01/03/2002

TIME: 13:07:20

Input Set : A:\R-948 Sequence listing for submission.txt

Output Set: N:\CRF3\01032002\J016993.raw

4 <110> APPLICANT: Wiles, Michael V.  
 5 Baribault, Helene  
 6 Zhang, Qin  
 8 <120> TITLE OF INVENTION: TRANSGENIC MICE CONTAINING ALPHA  
 9 ENDOSULFINE GENE DISRUPTIONS  
 12 <130> FILE REFERENCE: R-948  
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 18 <151> PRIOR FILING DATE: 2000-12-13  
 20 <160> NUMBER OF SEQ ID NOS: 7  
 22 <170> SOFTWARE: FastSEQ for Windows Version 4.0

**Does Not Comply  
 Corrected Diskette Needed**

## ERRORED SEQUENCES

136 <210> SEQ ID NO: 7  
 137 <211> LENGTH: 200  
 138 <212> TYPE: DNA  
 139 <213> ORGANISM: Artificial Sequence  
 141 <220> FEATURE:  
 142 <223> OTHER INFORMATION: Targeting Vector  
 144 <400> SEQUENCE: 7  
 145 ggcgggtctca acgtcacggg cttgagccgc cattttgact gagcaaccat agtgacagga 60  
 146 gccgtagcag cagctcaggt tgtccccggt tccccctccc cttccctttt ccggctgact 120  
 147 tcccggaccc tgcattacac agtccccggt ctgccatgtc ccagaaacaa gaagaagaaa 180  
 148 accctgcgga ggagaccggc  
 E--> 149 1 200

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/016,993

DATE: 01/03/2002

TIME: 13:07:21

Input Set : A:\R-948 Sequence listing for submission.txt  
Output Set: N:\CRF3\01032002\J016993.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:149 M:254 E: No. of Bases conflict, LENGTH:Input:1 Counted:200 SEQ:7